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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,890	12/18/2001	Michael J. Kinnavy	29250/CE08262R	5191

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CHICAGO, IL 60606-6402

EXAMINER

SMITH, SHEILA B

ART UNIT	PAPER NUMBER
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2681

3

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/024,890

Applicant(s)

KINNAVY, MICHAEL J.

Examiner

Sheila B. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6,8-14,16-27,29-33 rejected under 35 U.S.C. 102(e) as being anticipated by Henry, Jr. et al. (U. S. Patent Number 6,560,453).

*Regarding claim 1*, Henry, Jr. et al. discloses essentially all the claimed invention as set forth in the instant application, further Henry, Jr. et al. discloses system, methods and computer program products for dynamically adjusting the paging channel monitoring frequency of a mobile terminal based on the operating environment. In addition Henry, Jr. et al. discloses a wireless communication system, the communication system providing communication service to a mobile station, wherein the mobile station monitors for transmission from a base station via a communication resource based on an operating slot cycle index corresponding to an operating slot cycle, a method for enabling a preferred slot cycle (which reads on the abstract), the method comprising receiving control information associated with slot cycles operable by the base station (which reads on column 1 lines 44-48 and lines 55-59); adjusting the operating slot cycle index to a preferred slot cycle index in response to a trigger event (user input) (which reads on column 2 lines 23-27), the preferred slot cycle index corresponding to a preferred slot cycle; and transmitting the preferred slot cycle index to the base station so that the mobile station is in

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communication with the base station via the communication resource during a slot (which reads on column 5 lines 49-52), the slot reoccurring based on the preferred slot cycle (which reads on column 3 lines 7-11), wherein the preferred slot cycle is one of the slot cycles operable by the base station (which reads on column 9 lines 20-25).

***Regarding claim 2***, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses the step of adjusting the operating slot cycle index to a preferred slot cycle index comprises adjusting the operating slot cycle index to a preferred slot cycle index being greater than the operating slot cycle index such that the preferred slot cycle is longer than the operating slot cycle (which reads on column 5 lines 49-52).

***Regarding claim 3***, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses adjusting the operating slot cycle index to a preferred slot cycle index comprises adjusting the operating slot cycle index to a preferred slot cycle index being less than the operating slot cycle index such that the preferred slot cycle is shorter than the operating slot cycle (which reads on column 5 lines 49-52).

***Regarding claim 4***, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses adjusting the operating slot cycle index to a preferred slot cycle index in response to a trigger event comprises adjusting the operating slot cycle index to the preferred slot cycle index in response to a user-selectable input, a voice input, and an operating characteristic associated with the mobile station (which reads on column 2 lines 39-50 and column 5 lines 49-52).

**Regarding claim 5**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses adjusting the operating slot cycle index to a preferred slot cycle index in response to a trigger event comprises adjusting the operating slot cycle index to a preferred slot cycle index in response to the mobile station being at a battery power threshold (which reads on column 2 lines 5-10 and column 9 lines 11-25).

**Regarding claim 6**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses adjusting the operating slot cycle index to a preferred slot cycle index in response to a trigger event comprises adjusting the operating slot cycle index to a preferred slot cycle index in response to the mobile station being idle (which reads on column 9 lines 11-25).

**Regarding claim 8**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses transmitting the preferred slot cycle index to the base station such that the mobile station is in communication with the base station via the communication resource during a slot comprises transmitting the preferred slot cycle index to the base station so that the mobile station is in communication with the base station via a paging channel during a slot (which reads on column 9 lines 11-25).

**Regarding claim 9**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses transmitting the preferred slot cycle index to the base station such that the base station is in communication with the mobile station during a slot comprises transmitting the preferred slot cycle index to the base station via a registration so that the base station is in communication with the mobile station via the communication resource during a slot (which reads on column 9 lines 11-25).

***Regarding claim 10,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses transmitting the preferred slot cycle index to the base station such that the base station is in communication with the mobile station during a slot comprises transmitting the preferred slot cycle index to the base station via a n access channel so that the base station is in communication with the mobile station during a slot (which reads on column 9 lines 11-25).

***Regarding claim 11,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1) additionally, Henry, Jr. et al. discloses the communication system comprises a code division multiple access (CDMA) based communication system (which reads on column 9 lines 19-22).

***Regarding claim 12,*** Henry, Jr. et al. discloses essentially all the claimed invention as set fourth in the instant application, further Henry, Jr. et al. discloses system, methods and computer program products for dynamically adjusting the paging channel monitoring frequency of a mobile terminal based on the operating environment. In addition Henry, Jr. et al. discloses a wireless communication system, the communication system providing communication service to a mobile station, wherein the mobile station monitors for transmission from a base station via a communication resource based on an operating slot cycle index corresponding to an operating slot cycle, and wherein the mobile station is operable to enable a preferred slot cycle (which reads on the abstract), the mobile station comprising a user input device (42), a receiving unit (52) adapted to receive control information associated with slot cycles operable by the base station (which reads on column 4 lines 56-58); a controller (74) operatively coupled to the user input device (42) and the receiving unit (52), the controller comprising a processor (56) and a

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memory (54) operatively coupled to the processor (56), and the controller being programmed to adjust the operating slot cycle index to a preferred slot cycle index in response to a trigger event, wherein the preferred slot cycle index corresponds to a preferred slot cycle (which reads on column 5 lines 49-55); and a transmitting unit coupled to the controller, the transmitting unit being operable to transmit the preferred slot cycle index to the base station so that the mobile station is in communication with the base station via the communication resource during a slot (which reads on column 9 lines 30-39), the slot reoccurring based on the preferred slot cycle, wherein the preferred slot cycle is one of the slot cycles operable by the base station (which reads on column 9 lines 20-25).

***Regarding claim 13,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12) additionally, Henry, Jr. et al. discloses the preferred slot cycle index comprises a preferred slot cycle index greater than the operating slot cycle index such that the preferred slot cycle is longer than the operating slot cycle (which reads on column 5 lines 49-52).

***Regarding claim 14,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the preferred slot cycle index comprises a preferred slot cycle index less than the operating slot cycle index such that the preferred slot cycle is shorter than the operating slot cycle (which reads on column 5 lines 49-52).

***Regarding claim 16,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the user-input device comprises a numeric keypad, an alphanumeric keypad, a touch-sensitive display, and a microphone (which reads on column 2 lines 39-50 and column 5 lines 49-52).

**Regarding claim 17**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the trigger event comprises one of a user-selectable input, a voice input, and an operating characteristic associated with the mobile station (which reads on column 2 lines 39-50 and column 5 lines 49-52).

**Regarding claim 18**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the trigger event comprises the mobile station being at a battery power threshold (which reads on column 2 lines 5-10 and column 9 lines 11-25).

**Regarding claim 19**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the trigger event comprises the mobile station being idle (which reads on column 9 lines 11-25).

**Regarding claim 20**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the communication resource comprises a paging channel (which reads on column 9 lines 11-25).

**Regarding claim 21**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 12 ) additionally, Henry, Jr. et al. discloses the mobile station operates in accordance with a code division multiple access (CDMA) based communication protocol (which reads on column 9 lines 19-22).

**Regarding claim 22**, Henry, Jr. et al. discloses essentially all the claimed invention as set forth in the instant application, further Henry, Jr. et al. discloses system, methods and computer program products for dynamically adjusting the paging channel monitoring frequency of a mobile terminal based on the operating environment. In addition Henry, Jr. et al. discloses



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a wireless communication system, the communication system for providing communication service for a mobile station, wherein the mobile station monitors for transmission from a base station via a communication resource based on an operating slot cycle index corresponding to an operating slot cycle (which reads on the abstract), and wherein a processor (56) operates in accordance with a computer program embodied on a computer-readable medium (54) for enabling a preferred slot cycle, the computer program comprising a first routine that directs the processor to receive control information associated with slot cycles operable by the base station (which reads on column 5 lines 49-51 and exhibited in figure 2); a second routine that directs the processor to adjust the operating slot cycle index to a preferred slot cycle index in response to a trigger event (which reads on column 5 lines 51-53), a preferred slot cycle index, the preferred slot cycle index corresponding to a preferred slot cycle; and a third routine that directs the processor to transmit the preferred slot cycle index to the base station so that the mobile station is in communication with the base station during a slot (which reads on column 9 lines 19-22), the slot reoccurring based on the preferred slot cycle, wherein the preferred slot cycle is one of the slot cycles operable by the base station (which reads on column 9 lines 20-25).

**Regarding claim 23**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the second routine comprises a routine that directs the processor to adjust the operating slot cycle index to a preferred slot cycle index being greater than the operating slot cycle index such that the preferred slot cycle is longer than the operating slot cycle (which reads on column 5 lines 49-52).

**Regarding claim 24**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the second routine comprises a routine that directs the processor to adjust the operating slot cycle index to a preferred slot cycle index being less than the operating slot cycle index such that the preferred slot cycle is shorter than the operating slot cycle (which reads on column 5 lines 49-52).

**Regarding claim 25**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the second routine comprises a routine that directs the processor to adjust the operating slot cycle index to the preferred slot cycle index in response to a user-selectable input, a voice input, and an operating characteristic associated with the mobile station (which reads on column 2 lines 39-50 and column 5 lines 49-52).

**Regarding claim 26**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the second routine comprises a routine that directs the processor to adjust the operating slot cycle index to a preferred slot cycle index in response to the mobile station being at a battery power threshold (which reads on column 2 lines 5-10 and column 9 lines 11-25).

**Regarding claim 27**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the second routine comprises a routine that directs the processor to adjust the operating slot cycle index to a preferred slot cycle index in response to the mobile station being idle (which reads on column 9 lines 11-25).

**Regarding claim 29**, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the third routine comprises a routine that directs the processor to transmit the preferred slot cycle index to the base station so that the

mobile station is in communication with the base station via a paging channel during a slot (which reads on column 9 lines 11-25).

***Regarding claim 30,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the third routine comprises a routine that directs the processor to transmit the preferred slot cycle index to the base station via a registration so that the base station is in communication with the mobile station via the communication resource during a slot (which reads on column 5 lines 49-52).

***Regarding claim 33,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the third routine comprises a routine that directs the processor to transmit the preferred slot cycle index to the base station via an access channel so that the base station is in communication with the mobile station via the communication resource during a slot (which reads on column 5 lines 49-52).

***Regarding claim 33,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 32 ) additionally, Henry, Jr. et al. discloses the computer program operates in accordance with a code division multiple access (CDMA) based communication protocol (which reads on column 9 lines 19-22).

***Regarding claim 33,*** Henry, Jr. et al. discloses everything claimed, as applied above (see claim 22 ) additionally, Henry, Jr. et al. discloses the medium is one of paper, a programmable gate array, application specific integrated circuit, erasable programmable read only memory, read only memory, random access memory, magnetic media, and optical media (which reads on column 4 lines 42-48).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7,15,28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henry, Jr. et al. in view of Moon et al. (U. S. Patent Number 6,577,608).

***Regarding claims 7, 15 ,28***, Henry, Jr. et al. discloses everything claimed, as applied above (see claim 1 ) additionally, Henry, Jr. et al. discloses the step of adjusting the operating slot cycle index to a preferred slot cycle index in response to a trigger event comprises adjusting the operating slot cycle index to a slot number in response to a trigger event as disclosed in column 5 lines 49-55. However, Henry Jr. et al. fails to specifically disclose a slot number including one of zero (0), one (1), two (2), three (3), four (4), five (5), six (6) and seven (7).

In the same field of endeavor, Moon et al. further discloses a communication control device and method for CDMA communication system. In addition Moon et al. discloses a slot number including one of zero (0), one (1), two (2), three (3), four (4), five (5), six (6) and seven (7) as disclosed in column 3 lines 10-15.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Henry Jr. et al. by modifying a system, methods and computer program products for dynamically adjusting the paging channel monitoring frequency of a mobile terminal based on the operating environment with the use of a slot number including

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one of zero (0), one (1), two (2), three (3), four (4), five (5), six (6) and seven (7) as taught by Moon et al. for the purpose of letting the mobile station enter the sleep mode to save power.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (703)305-0104. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary can be reached on 703-308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Smith

June 27, 2004

  
ERIKA GARY  
PATENT EXAMINER